

# EXPLOSIVE DEVICE RESPONSE OPERATIONS

## Capability Definition

Explosive Device Response Operations is the capability to coordinate, direct, and conduct improvised explosive device (IED) response after initial alert and notification. Coordinate intelligence fusion and analysis, information collection, and threat recognition, assess the situation and conduct appropriate Render Safe Procedures (RSP). Conduct searches for additional devices and coordinate overall efforts to mitigate chemical, biological, radiological, nuclear, and explosive (CBRNE) threat to the incident site.

## Outcome

Threat assessments are conducted, the explosive and/or hazardous devices are rendered safe, and the area is cleared of hazards. Measures are implemented in the following priority order: ensure public safety; safeguard the officers on the scene (including the bomb technician); collect and preserve evidence; protect and preserve public and private property; and restore public services.

## Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

Terrorism Incident Law Enforcement and Investigation Annex

ESF #10: Oil and Hazardous Materials Response

ESF #13: Public Safety and Security

## Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B2c 1.1	Develop, distribute, and maintain National Guidelines for Bomb Technicians
Res.B2c 1.2	Develop effective procedures and programs including standardized training to counter terrorist events, employing weapons of mass destruction (WMD), suicide bombers, Vehicle Borne Improvised Explosive Devices (VBIED), and Radio Controlled Improvised Explosive Devices (RCIED)
Res.B2c 1.1.1	Maintain programs to ensure public safety bomb technicians are certified, and re-certified by FBI Hazardous Devices School (HDS)
Res.B2c 1.1.2	Maintain programs to ensure all public safety bomb squads remain accredited by the FBI according to National Guidelines for Bomb Technicians
Res.B2c 1.3	Develop and maintain plans that coordinate explosive device response in multi-jurisdictional areas which protect critical infrastructure and key resources from terrorist threats
Res.B2c 1.4	Develop and maintain programs to measure gaps in explosive device response capability
Res.B2c 1.5	Develop and maintain programs to share explosive device response information, effective practices, and lessons learned

Res.B2c 1.6	Assist public safety bomb squads and teams in achieving increased capability to counter terrorist events with goal of a Type I rating	
Preparedness Measures		Metrics
Percent of bomb squads accredited by the FBI to standards set by the National Bomb Squad Commanders Advisory Board (NBSCAB)		100%
Effective plans for Explosive Device Response Operations are in place		Yes/No
Plans address standardized education to certify bomb technicians (e.g. FBI Hazardous Devices School, National Bomb Squad Commanders Advisory Board).		Yes/No
Plans address onsite treatment of devices (e.g. deactivation, disruption, disabling, containerizing for transport).		Yes/No
Plans address communications requirements (e.g. establish onsite command, control, communications and intelligence operations).		Yes/No
Effective plans, tactics, techniques, and procedures to respond to suicide bombers are in place		Yes/No
Effective plans, tactics, techniques, and procedures to respond to vehicle borne improvised explosive devices are in place		Yes/No
Effective plans, tactics, techniques, and procedures to respond to radio controlled improvised explosive devices are in place		Yes/No
Effective plans, tactics, techniques, and procedures to respond to improvised devices that contain chemical, biological, and radiological components (Weapons of Mass Destruction) are in place		Yes/No
Current mutual aid agreement that permits sharing of personnel and/or equipment is in place (if necessary)		Yes/No
Squads obtain the equipment and training to receive a Type I or II rating		Yes/No

### Activity: *Develop and Maintain Training and Exercise Programs*

#### Critical Tasks

Res.B2c 2.1.6	Train public safety personnel to recognize explosive hazards, device components and precursors and take appropriate action to maintain public safety
Res.B2c 2.1.8	Train public safety personnel and private sector security to effectively operate during explosive device incidents
Res.B2c 2.3	Provide bomb threat awareness training and information to general public and private sector
Res.B2c 2.1.1	Establish in-service training programs for bomb squads that meet or exceed minimum recommendations set in the National Guidelines for Bomb Technicians
Res.B2c 2.1.2	Initially train, certify, and re-certify public safety bomb technicians using curriculum designed, developed and delivered by the NBSCAB and the FBI Hazardous Devices School (HDS)
Res.B2c 2.1.3	Initially accredit, and re-accredit public safety bomb squads using the curriculum developed by the NBSCAB and the FBI Hazardous Devices School (HDS)
Res.B2c 2.1.4	Design, develop and deliver specialized training for public safety bomb squads and bomb technicians in cooperation with FBI Hazardous Devices School (HDS)

Res.B2c 2.1.5	Design, develop and deliver explosive device response capability enhancement training and technical assistance for public safety bomb squads and bomb technicians to coordinate national prevention and protection efforts in cooperation with the DHS	
Res.B2c 2.1.9	Design, develop, and deliver training in post-blast investigation consistent with the Bomb Scene Investigation Concept that includes a qualified bomb technician as part of the post-blast investigation team	
Res.B2c 2.1.7	Obtain DHS certification and approval for use of Homeland Security Grant funds for selected training and technical assistance	
Res.B2c 2.2.1	Validate effectiveness of plans, procedures, and programs through realistic practical exercises	
Preparedness Measures		Metrics
Effective training and exercise programs for responding to suicide bombers are in place		Yes/No
Effective training and exercise programs for responding to Vehicle Borne Improvised Explosive Devices (VBIED) are in place		Yes/No
Effective training and exercise programs for responding to Radio Controlled Improvised Explosive Devices (RCIED) are in place		Yes/No
Effective training and exercise programs for responding to improvised devices that contain chemical, biological, and radiological components (Weapons of Mass Destruction) are in place		Yes/No
Percent of certified bomb technicians trained and exercised in all required areas		100%
Effective tactics, techniques, procedures, and training are standardized and shared within the bomb squad community		Yes/No
Effective practices and training are reinforced as needed during practical exercises that accurately replicate threats and operating conditions		Yes/No
Percent of public safety personnel trained in explosive device awareness		100%
Percent of squads that meet or exceed the continuing minimum training set in the National Guidelines for Bomb Squad Technicians		100%
General public and private sector are provided with bomb threat awareness training as needed		Yes/No
All bomb squad training (including techniques, tactics, and procedures) is consistent with and enhances training delivered by the FBI Hazardous Devices School (HDS)		Yes/No

### **Performance Measures and Metrics and Critical Tasks**

#### **Activity: Direct Explosive Device Response Operations**

**Definition:** In response to notification of a potential exploding device, provide management and coordination of Explosive Device Response Operations capability, through demobilization

#### **Critical Tasks**

Res.B2c 3.1	Establish onsite command, control, communications, and intelligence (C3I) operations for explosive device response operations
Res.B2c 3.2	Coordinate with Incident Command (IC) to establish perimeter control (hot, warm, cold zones)

	commensurate with hazard magnitude	
Res.B2c 3.3	Coordinate with appropriate unit and develop a plan of action	
Res.B2c 3.3.1	Utilize canine, physical, and technical search techniques to secure inner perimeter	
Performance Measures		Metrics
Time in which onsite command and control communications (C3) is established and real time tactical information is shared <i>Note: If C3 and info-share are established, bomb squad will demonstrate ability to “join” rather than establish the network</i>		Within 15 minutes from arrival onsite

**Activity: Activate Public Safety Bomb Squad**
**Definition: In response to activation, mobilize and arrive at the incident scene to begin operations**
**Critical Tasks**

Res.B2c 4.2	Notify and activate Public Safety Bomb Squad Personnel	
Res.B2c 4.3	Determine needed personnel and equipment based on information provided	
Res.B2c 4.4.1	Assemble properly equipped bomb squad team at designated location	
Res.B2c 4.5	Reassess personnel and equipment needs upon arrival	
Performance Measures		Metric
Time in which Bomb Squad personnel is notified by dispatch		Within 15 minutes from time of recognition of explosive device threat by on-scene first responders
Time in which determination is made as to personnel and equipment that needs to be dispatched		Within 15 minutes from notification
Time in which required personnel and equipment are enroute to the scene		Within 30 minutes from initial notification

**Activity: Search and Assess Site**
**Definition: Once on scene and equipped, provide rapid assessment of assigned Bomb Squad work areas, recommend search priorities/tactics to management, and begin search operations utilizing canine, physical, and technical (e.g. electronic, robotic) search techniques**
**Critical Tasks**

Res.B2c 5.1.1	Interview on-scene commander and any witnesses with direct observation of the device
Res.B2c 5.1	Conduct an initial reconnaissance of the area
Res.B2c 5.2	Implement emergency assessment procedures
Res.B2c 5.3	Conduct improvised explosive device threat analysis
Res.B2c 5.3.1	Determine appropriate operational procedures based on reconnaissance and initial assessments
Res.B2c 5.4	Provide positive explosive identification and safety guidance

Res.B2c 5.5	Notify proper Federal agencies if device is a suspected WMD
Performance Measures	Metric
Time in which initial cordon is verified	Within 1 hour from arrival at incident scene
Time in which Operational Threat Assessment is complete	Within 1 hour from arrival at incident scene

### Activity: *Render Safe Onsite*

**Definition:** Once on scene, establish site perimeters based on Standard Operating Procedures (SOP) and threat, conduct IED onsite response and isolate device(s) from potential remote detonation commands, clear the onsite area for render safe operations, and ensure compliance with Radiological Assistance Program, Federal Radiological Emergency Response Plan, National Response Plan for radiological IEDs

#### Critical Tasks:

Res.B2c 6.3	Conduct improvised explosives device (IED) onsite response
Res.B2c 6.1	Isolate device(s) from remote detonation commands
Res.B2c 6	Render device safe
Res.B2c 6.5	Identify appropriate off-site location if off-site render safe operations are necessary
Res.B2c 6.5.1	Prepare device to be transported to secondary location if off-site render safe operations are necessary
Res.B2c 6.3.1	Ensure compliance with Radiological Assistance Program plan (RAP), Federal Radiological Emergency Response Plan (FRERP) and National Response Plan for radiological IEDs
Res.B2c 7.4	Document and preserve evidence
Res.B2c 7.4.2	Initiate and advise crime scene investigative/forensic team
Performance Measures	Metric
Time in which public Safety Bomb Squad verifies and assesses site perimeters based on standard operating procedures (SOP) and threat <i>Note: If perimeters were previously established Bomb Squad will verify</i>	Within 1 hour from arrival onsite
Diagnostics and render safe procedures are conducted as appropriate for threat and device type by function	Yes/No

### Activity: *Conduct Recovery, Removal, and Transport Operations*

**Definition:** Collect and transport device and/or components for further processing of hazardous elements

#### Critical Tasks

Res.B2c 7.1	Conduct onsite processing of device components and containerize for transportation
Res.B2c 7.2	Transport and escort components to a secure site
Res.B2c 7.3	Conduct off-site render safe and/or emergency destruction of device/explosives

Res.B2c 7.4.1	Document and preserve evidence	
Res.B2c 7.5	Assess further the functional characteristics of the device as they relate to response safety considerations (i.e. serial bomber)	
Res.B2c 6.3.1	Ensure compliance with Radiological Assistance Program plan (RAP), Federal Radiological Emergency Response Plan (FRERP) and National Response Plan for radiological IEDs	
Res.B2c 7.4	Document and preserve evidence	
Performance Measures		Metric
Device and/or components are prepared for transport to a safe and secure site for processing and/or disposal within time period determined by bomb technicians on the scene, in accordance with public safety considerations		Yes/No

**Activity: *Demobilize Explosive Device Removal Operations***

**Definition:** Upon completion of assigned mission, conduct 100% accountability of personnel and equipment, reconstitute as required and disengage from incident site, and either be placed on standby or redeploy to headquarters and stand-down

**Critical Tasks**

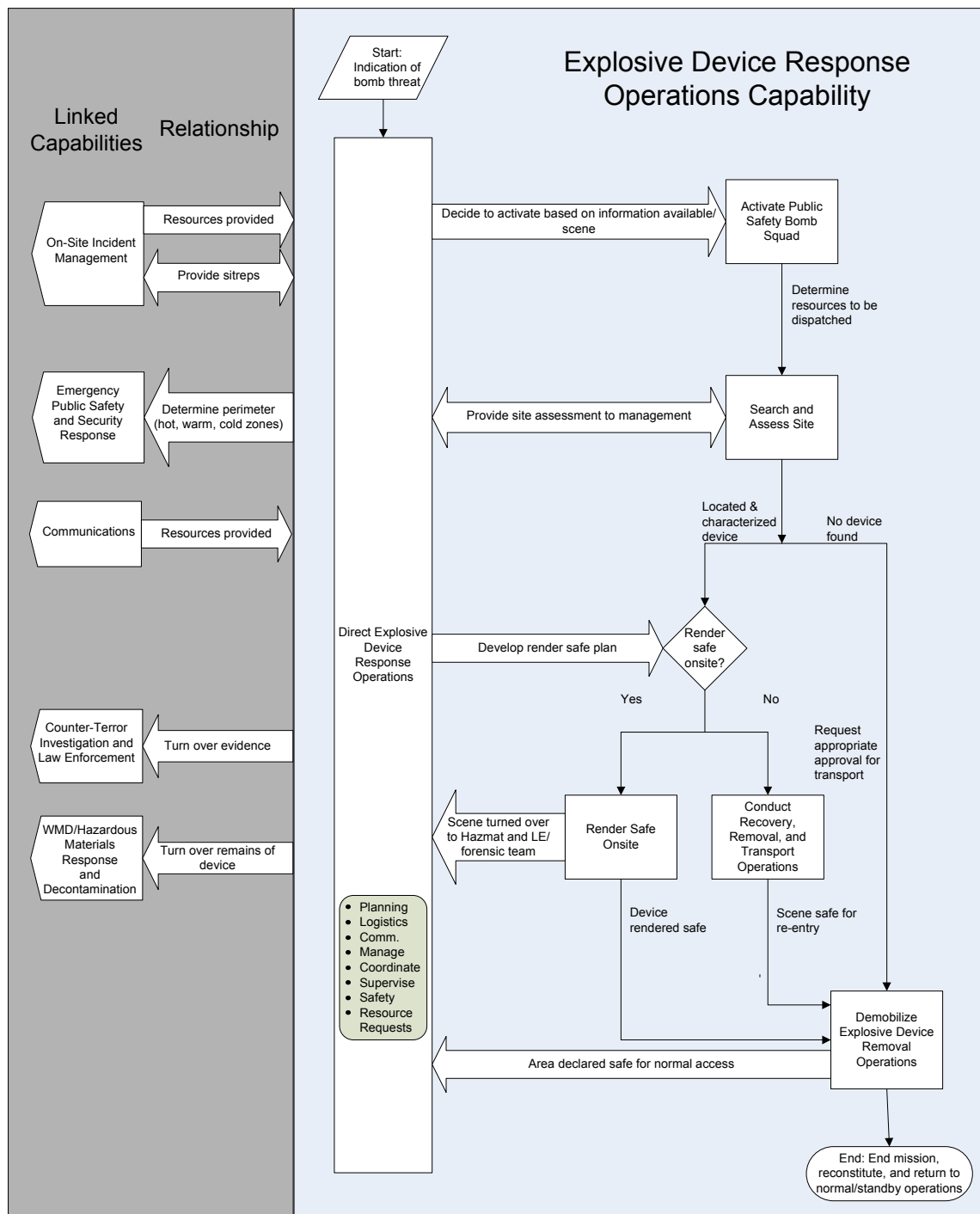
Res.B2c 8.1	Conduct 100% accountability of personnel and equipment	
Res.B2c 8.2	Coordinate with Incident Command (IC) and Emergency Operations Center (EOC) to redeploy Public Safety Bomb Squad	
Res.B2c 8.3	Conduct debriefing for Bomb Squad personnel	
Res.B2c 8.4	Conduct debriefing, when necessary, for all on-scene emergency personnel	
Performance Measures		Metric
Percent of on-scene Bomb Squad personnel provided a debriefing after every incident		100%
Other responders are debriefed		Yes/No
Additional Bomb Squad personnel who were not at the scene are briefed		Yes/No

***Linked Capabilities***

Linked Capability	Relationship
On-Site Incident Management	Explosive Device Response Operations integrates itself into the local Incident Command/Unified Command system. Explosive Device Response Operations provides Incident Command/Unified Command with situation status reports and threat/consequence information from which Incident Command determines, coordinates, and controls response actions. On-Site Incident Management also provides additional resources as requested by Explosive Device Response Operations.
Emergency Public Safety and Security Response	Explosive Device Response Operations determines and provides Emergency Public Safety and Security Response with threat information and safe distance recommendations for establishing a safety perimeter to include hot, warm, and

Linked Capability	Relationship
	cold zones and any safety corridors that need to be established for movement of explosive devices.
Counter-Terror Investigation and Law Enforcement	Explosive Device Response Operations follows procedures for preservation of evidence and chain of custody of evidence. Explosive Device Response Operations turns site over to Counter-Terror Investigation and Law Enforcement after neutralizing the threat.
WMD and Hazardous Materials Response and Decontamination	Explosive Device Response Operations turns over remains of device to WMD and Hazardous Materials Response and Decontamination for further treatment, as necessary.
Communications	Explosive Device Response Operations must have the ability to transmit/receive secure voice, data and images between inter-agency law enforcement community

## Capability Activity Process Flow





## Resource Element Description

Resource Elements	Components and Description
Bomb Squads Type I	Per NIMS, a Type I level accredited bomb squad is capable of handling multiple incidents. Type I teams from these squads must have render safe capabilities including a remote (robotic) vehicle capable of handling a vehicle borne IED. Squads trained and equipped to work in a CBRN environment.
Bomb Squads Type II	Per NIMS, a Type II level accredited bomb squad is capable of handling multiple incidents. Type II teams from these squads must have render safe capabilities including a remote (robotic) vehicle which may not be capable of handling a vehicle borne IED. Squads trained and equipped to work in a CBRN environment.
Bomb Squads Type III	Per NIMS, a Type III level accredited bomb squad is capable of handling a single incident. Type III teams from these squads must have basic render safe capabilities without a remote (robotic) vehicle. Squads may be trained, but not equipped to work in a CBRN environment.
FBI Special Agent Bomb Technician	
ATF Explosive Enforcement Officers	
DHS Office for Bombing Prevention	
DHS/TSA Explosives Unit	
National Guard EOD	
DoD/Military EOD	

## Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability factors were developed from an in-depth analysis of the Improvised Explosives Device scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- It is noted that the specific placement of existing bomb squads has been driven by bombing activity levels in the past, and the issue of adding new bomb squads or the rapid expansion of existing bomb squads is currently managed through a “Needs Survey” process by the FBI, based on standards set by the National Bomb Squad Commanders Advisory Board (NBSCAB) for the purpose of maintaining the optimum levels of qualified and experienced bomb squad personnel. The Needs Survey is further defined in the National Guidelines for Bomb Technicians.
- General guidance -- Coverage of high density population and critical infrastructure/key resources (CI/KR) locations by Type I level bomb squad teams is being added as a factor in the “Needs Survey” process, detailed in the National Guidelines for Bomb Technicians. Other Locations – Type I, II, or III based on population, population density, critical infrastructure requirements, and additional factors as defined in the “Needs Survey” process
- All situations must be assessed by the bomb technician on the scene as to time sensitive considerations. Safety issues take precedence over time considerations.

## Target Capabilities List

- In catastrophic level Vehicle Borne Improvised Explosive Device (VBIED) situation where full remote capabilities are available, it is desired to have the technological potential for diagnostics and execution of the disruption tools within one hour from time of arrival on the scene.
- Large Vehicle Bombs require Type I teams minimum
- Radio Controlled Improvised Explosive Device (RCIED) require Type II team minimum, plus Electronic Countermeasures (ECM) training and equipment meeting standards set by NBSCAB
- Suicide Bomber(s) require Type III team minimum
- Effective response times are directly related to threat identification and communicative chain to dispatch.
- Response timelines are dependent on location of event relative to placement of capability.
- A system is in place to ensure the timely receipt of intelligence or device information to assist those responding to the threat.
- Bomb Squad – A bomb response organization consists of at least one bomb response team (see the definition of a “bomb response team”), accredited by the FBI Hazardous Devices School to standards set by the National Bomb Squad Commanders Advisory Board.
- Bomb Response Team – A sub-unit within a bomb squad, consisting of at least two certified bomb technicians and a full set of equipment meeting minimum standards for bomb squad operations.
- Military EOD units are not currently resource typed within NIMS but are available to respond to incidents in the community either to assist the “accredited” bomb squad, or respond to the incident in an area without State/local bomb squad presence.

### ***Target Capability Preparedness Level***

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Bomb Squads (Type I, II, and III)	NIMS Typed Resource Organization	458	Nationally	State/Local	All activities
FBI Special Agent Bomb Technician	Personnel	140	Nationally, across 56 Field Offices	Federal (DOJ/FBI)	All activities
ATF Explosive Enforcement Officers	Personnel	30	Nationally	Federal (DOT/ATF)	All activities
DHS Office for Bombing Prevention	Federal Resource Organization	1	Nationally	Federal (DHS)	<i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>  <i>Develop and Maintain Training and Exercise Programs</i>
DHS/TSA Explosives Unit	Personnel	32	Nationally	Federal (DHS)	All activities (Airline/

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Airport support)
National Guard EOD	Federal Resource Organization			Federal (DoD/U.S. National Guard)	All activities
DoD/Military EOD	Federal Resource Organization			Federal (DoD)	All activities

## References

1. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. Homeland Security Presidential Directive/HSPD-19, "Combating Terrorist Use of Explosives in the United States". February 12, 2007.
3. National Bomb Squad Commander's Advisory Board (NBSCAB). <http://www.nbscab.org>
4. Hazardous Devices School (HDS), Federal Bureau of Investigation, Redstone Arsenal, Alabama.
5. National Guidelines for Bomb Technicians, FBI Bomb Data Center Special Technicians Bulletin 87-4, Revised 6/01.
6. National Strategic Plan for U.S. Bomb Squads, November 2005.
7. NFPA 471: Recommended Practice for Responding to Hazardous Materials Incidents, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=471>.
8. NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=472>.
9. NFPA 1561: Standard on Emergency Services Incident Management System, National Fire Protection Association, 2005 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>.
10. National Response Plan (NRP). Department of Homeland Security. December 2004.
11. National Incident Management System (NIMS). Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
12. National Mutual Aid and Resource Management Initiative, Resource Typing Definitions- I. Federal Emergency Management Agency. January 2004. [http://www.fema.gov/pdf/preparedness/initial\\_60\\_rtd.pdf](http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf)
13. Standardized Equipment List. The Interagency Board. 20. <http://www.iab.gov/downloads/IAB%202004%20SEL.pdf>
14. Homeland Security Exercise and Evaluation Program (HSEEP), Volume II: Exercise Evaluation and Improvement. Office for Domestic Preparedness, Department of Homeland Security. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>
15. 2004 Emergency Response Guidebook: A Guidebook for First Responders during the Initial Phase of a Dangerous Goods/Hazardous Materials Incident. Department of Transportation. 2004. <http://HazMat.dot.gov/erg2004/erg2004.pdf>
16. Energetic Materials Research and Training Center (EMRTC). New Mexico. <http://www.emrtc.nmt.edu>
17. Emergency Response to Terrorism: Basic Concepts. U.S. Department of Justice and Federal Emergency Management Agency. 2004

18. Bomb Squad Response to Suicide Bombers and Vehicle Borne Improvised Explosive Devices-Categories and Strategies, NBSCAB, January 2006.
19. Bureau of Alcohol, Tobacco, Firearms and Explosives, Federal Explosives Law and Regulations, ATF P 5400.7 (09/00).